

What is claimed is:

1. A water purification device comprising a fluid pump, a diaphragm unit having a diaphragm, which separates a primary side from a secondary side, and a consumer having a pressure requirement, the fluid pump being connected with the primary side and the consumer being connected with the secondary side, wherein the fluid pump supplies the pressure (P2) for the consumer through the diaphragm.
2. A device according to claim 1, wherein a control device is provided, which sets a pressure drop across the diaphragm at a predetermined value.
3. A device according to claim 1, wherein the primary side is connected with a pressure control device, which controls the pressure (P1) on the primary side in dependence of the pressure (P2) on the secondary side, and the consumer has a pressure inlet, which is connected to the secondary side.
4. A device according to claim 3, wherein the pressure control device has a control valve, which is arranged in a connection line between the fluid pump and the diaphragm unit.
5. A device according to claim 4, wherein the control valve has a valve element, which is acted upon in the opening direction by the pressure (P2) on the secondary side and in the closing direction by the pressure (P1) on the primary side.
6. A device according to claim 1, wherein the primary side has a fluid outlet arrangement, in which is arranged an adjustable throttle.
7. A device according to claim 6, wherein a shiftable valve is arranged in parallel with the throttle.

8. A device according to claim 1, wherein the pressure control device controls the pressure (P1) on the primary side so that the pressure (P2) on the secondary side is in a range from 35 to 180 bar.
9. A device according to claim 1, wherein the pressure control device controls the pressure (P1) on the primary side in dependence of the quality of the water to be purified.
10. A device according to claim 9, wherein the pressure control device sets a pressure difference across the diaphragm with drinking water in the range from 3 to 7 bar, with impurified water in the range from 7 to 30 bar and with saltwater in the range from 30 to 80 bar.
11. A device according to claim 1, wherein the consumer has a valve, which opens at a predetermined minimum pressure.